IN THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application. An identifier indicating the status of each claim is provided.

Listing of Claims

1.   (Currently Amended) Apparatus for storing and/or transmitting a one-bit signal, the apparatus comprising:

an input inverter for inverting alternate data bits of an input one-bit digital signal, to generate a bit-inverted signal;

a storage and/or transmission medium for storing and/or transmitting said bit-inverted signal; and

an output inverter for inverting alternate data bits of said bit-inverted signal, to regenerate said input one-bit digital signal;

wherein, to invert said alternate data bits of said input one-bit digital signal, said one-bit signal is split into two bit streams, one bit stream having ~~alternate~~ odd data bits and one bit stream having ~~alternate~~ even data bits; and

wherein each of said two bit streams is ~~split a second time~~ subdivided to form ~~two~~ channel pairs before recording is performed in order to prevent errors that occur due to a mute operation of said storage and/or transmission medium.

2.   (Original) Apparatus according to claim 1, in which said storage and/or transmission medium is operable to store and /or transmit data words each having a predetermined number of data bits.

3.   (Original) Apparatus according to claim 2, in which:

said storage and/or transmission medium is an AES/EBU standard digital audio recorder; and

said predetermined number of bits in each data word is 16 bits.

4.   (Currently Amended) Apparatus for storing and/or transmitting a one-bit

signal, the apparatus comprising:

an input inverter for inverting a subset of the alternate data bits of an input one-bit

digital signal, to generate a bit-inverted signal;

a storage and/or transmission medium for storing and/or transmitting said bit-

inverted signal;

an output inverter for inverting said subset of the alternate data bits of said bit-

inverted signal, to regenerate said input one-bit digital signal;

wherein said storage and/or transmission medium is operable to store and /or

transmit data words each having a predetermined number of alternate data bits; and

a multiplexer for multiplexing the alternate data bits of the input one-bit signal

into data words each having said predetermined number of alternate data bits;

said input inverter being operable to invert a subset of data words output by said

multiplexer, to form said bit-inverted signal;

wherein, to invert said alternate data bits of said input one-bit digital signal, said

one-bit signal is split into two bit streams, one bit stream having alternate odd data bits and one

bit stream having alternate even data bits; and

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wherein each of said two bit streams is ~~split a second time~~ <u>subdivided</u> to form ~~two~~

channel pairs <u>before recording is performed in order to prevent errors that occur due to a mute</u>

<u>operation of said storage and/or transmission medium.</u>

5. (Canceled)

6.   (Original) Apparatus according to claim 4, in which said output inverter is

operable to invert said subset of data words of said bit-inverted signal;

said apparatus comprising a demultiplexer for demultiplexing data words output

by said output inverter, to regenerate said input one-bit digital signal.

7-8. (Canceled)

9.   (Original) Apparatus according to claim 1, in which said input inverter

comprises:

means for providing an inversion control signal having a signal state varying

between two predetermined states; and

control logic operable to selectively invert data bits of said input one-bit digital

signal in response to a current state of said inversion control signal.

10.   (Original) Apparatus according to claim 9, in which:

said providing means comprises a shift register having a one-bit output fed back

to an input of said shift register; and

said control logic comprises an exclusive-OR gate operable to combine a current bit output by said shift register with a current bit of said input one-bit digital signal.

11.   (Original) Apparatus according to claim 1, in which said storage and/or transmission medium is operable to output a mute signal comprising successive data bits of the same data value if a storage, reproduction and/or transmission error, failure or cessation occurs.

12.   (Currently Amended) Apparatus for formatting a one-bit digital signal for storage and/or transmission, said apparatus comprising an inverter for inverting alternate data bits of an input one-bit digital signal, to generate a bit-inverted signal to be stored or transmitted;

wherein, to invert said alternate data bits of said input one-bit digital signal, said one-bit signal is split into two bit streams, one bit stream having ~~alternate~~ odd data bits and one bit stream having ~~alternate~~ even data bits; and

wherein each of said two bit streams is ~~split a second time~~ subdivided to form ~~two~~ channel pairs before recording is performed in order to prevent errors that occur due to a mute operation of a storage and/or transmission medium.

13.   (Currently Amended) Apparatus for receiving a one-bit digital signal after storage and/or transmission, said apparatus comprising an inverter for inverting alternate data bits of the received one-bit digital signal;

wherein, to invert said alternate data bits of said input one-bit digital signal, said one-bit signal is split into two bit streams, one bit stream having ~~alternate~~ odd data bits and one bit stream having ~~alternate~~ even data bits; and

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wherein each of said two bit streams is ~~split a second time~~ subdivided to form ~~two~~ channel pairs <u>before recording is performed in order to prevent errors that occur due to a mute operation of a storage and/or transmission medium</u>.

14.   (Original) Apparatus according to claim 1, in which said input one-bit digital signal is a one-bit digital audio signal.

15-16. (Canceled)